

**NINETH REPORT, JUNE 2017**

**POST- CLEARANCE ENVIRONMENTAL REPORT  
OF  
THE HERMITAGE**

**(Residential Complex)**

**Village Daultabad, Sector 103  
GURGAON, HARYANA**



**Prepared by**

**SHIMI RESEARCH CENTER PVT. LTD.**

**Submitted to**

**MINISTRY OF ENVIRONMENT & FORESTS  
(New Delhi & Panchkula)**

**(June 2017)**

## **SALIENT FEATURES OF THE PROPOSED PROJECT**

- Name of Project : The Hermitage, Group Housing Colony
- Name of Company : M/s Satya Developers Pvt. Ltd.
- Location : Sector-103, Village Daultabad, Gurgaon
- Land Title : Licence No. 28 of 2011 dated 28/03/2011, Town & Country Planning Department Haryana, and renewed upto 27/11/2019 vide Memo no. LC-2415-PA(SN) 2017/8597 dated 03/05/2017
- Plot size : 10.20 Acres (41277.36 SQM)
- HUDA Norms :
- Total Plot Area 41277.36 Sqm
  - Total Built –up Area 96923.77 Sqm
  - Total Population 2550 Persons
  - 08 Towers 1 Basement + GF + 11 Floors
  - Max. Height Allowed : 55 Mt
  - Total water requirement 325 KLD from HUDA
  - STP of 330 KLD
  - Total Landscape Area 12385 Sqm

- Power Requirement 2940 KVA from DHBVN
- Parking Space 1108 ECS

Consent to Establish : No. HSPCB/consent/  
2821215 GUNOCTE1868055  
dated 29/05/2015 and extended upto  
26/12/2017 vide HSPCB letter no 2821216  
GUNOCTE 3061675 dated 19/05/2016

Licence : No. 28 of 2011 dated 28/03/2011 renewed  
Up to 27/03/2019 vide memo No.  
LC-2015-PA(B)-2017/ dated 13/05/2017

Approval of Fire : DFS/FA/2014/82/44934  
Fighting Scheme dated 16/09/2014

NOC for Fire safety : No. DFS/F.A./340/2016/3058  
Dated 2/04/2016

Approval of Revised : No. ZP-697/JD(BS)/2013/33690  
Building Plans of dated 15/03/2013  
Basement

NOC for Height : AAI/NOC/2011/162/1504  
Clearance dated 09/06/2011

- NOC for Construction : No. 13870 dated 12/09/2012 by Adm.  
Activity HUDA Gurgaon, Haryana
- Environmental : Clearance Received having Ref  
Clearance No.SEIAA/HR/2012/528 dated 27/12/2012  
Compliances report to be submitted on  
every 1<sup>st</sup> June & 1<sup>st</sup> December of year till  
completion of project
- Aravali Notification : No/10/MB dated 30/01/2013 by  
Deputy Commission, Gurgaon
- Part Occupation : DG, T&C Planning Department Haryana,  
Certificate Chandigarh Memo No. ZP-697/SD(BS)/  
2016/17022 Dated 12/08/2016
- NOC for the Fire : Director, Haryana Fire Service, Panchkula  
Safety letter No. DFS/FS/340/2016/30851  
Dated 02/04/2016

## **PROJECT STATUS**

The project status of The Hermitage is as follows:

1. The construction of all towers is completed.
2. The customer handover in Towers 6, 7 & 8 is in progress. Handover of 84 units has already been completed.
3. Towers 3, 4 & 5 are complete with 2 coat painting and 25% wiring complete. Final Coat left.
4. External plaster of Towers 1 & 2, 100% is complete.
5. Internal plaster of Towers 1 & 2, 100% is complete.
6. Railing is 95% complete in Tower 1 & 2.
7. Lift room is work in progress for both Tower 1 & 2.
8. Flooring complete in Tower 2 and is 95% complete in Tower 1.
9. Installation of lifts at Towers 3, 4, 5, 6, 7 & 8 are complete.
10. Rain water harvesting 10 out of 11 is complete.
11. EWS, Tower 1 & 2 is 100% complete, and 93 out of 93 flats are ready for occupation.
12. The structure of 13 out of 13 villas, Sample Villa is complete with External plaster, internal plaster and windows & doors are work in progress.

13. G + 5 Studio apartments is work in progress with mummy and machine room left for construction. Brick work is 90% complete, internal and external plaster along with wiring is work in progress
14. All 10 commercial shops are ready for possession.
15. The construction of club, 100% is complete, tile work has been completed.
16. The structure of swimming pools is complete.
17. Landscaping 100% is complete.
18. Both parking at basement 1 & 2 with ventilation and ducting are complete.
19. Out of proposed 5 DG sets, two with the capacity of 500 & 625 KVA has already been installed.
20. Boundary wall construction, 100 % is complete.
21. Installation of pump and construction of pump room is complete.
22. Pump fixing of STP is complete.
23. Laying out the sewer line is complete.
24. Drainage line is 100% is complete.
25. Firefighting is complete.

26. The water for the construction purpose is provided through HUDA.
27. The STP treated water for the construction purposes is also provided by HUDA.
28. A water treatment plant has been installed to treat the STP treated water before use in the construction.
29. No bore well water is used for the construction.
30. All DG sets used are with acoustic enclosures.
31. Adequate sanitary and hygienic measures for workers have been adopted and have been maintained throughout construction phase. Drinking water facility and toilets at construction site have been provided for workers. For officers and supervisors, site office with required facilities has been developed.
32. No hazardous material and bituminous material has been generated from site. Every precaution has been taken to prevent groundwater from contamination.
33. Secured area has been provided for storage of cement bags.
34. Workers are advised to use helmets at construction site.
35. No stagnant water formation is found in the premises.

36. Regular water spray is being used to suppress the dust generated from haul road inside the construction site.

### Green Belt Development

The partial expenditure incurred for the green belt development is listed below:

S. No.	Year	Area Covered	No. of Plants Planted	Species of Plants Planted	Expenditure Incurred
1	June 2017	8000 sqm	40,000 Nos.	Plumeria Alba Chorisia Speciosa Chakarasia Tabularis Ficus Benjamina Bhuhinia Purpurea Washingtonia Filifera Alstonia Scholaris Furcaria Cycas Revoluta Hamelia Panda Ficus Panda Ficus Panda Topiary Acalypha Wilkinseana Phoniex Rombelini Tecoma Gaudichaudi Hibiscus Rosa-Sinensis Calliandra Breviceps Lantana Depressa Chemropsis Ficus Reginald Areca Palm Raphis Palm Hamelia Patens Bougalinvillea Torch Cycas Circinalis Celedendron Inerme Ierme Iresine Quisqulis indica Cestrum noctprom Terminelia Nerium oleander Date Palm	20-25 Lacs



## **SAFETY MEASURES**

The other safety measures to be followed during the construction period by Project Manager/Deputy Project Manager

- ❖ That no staff should go to the project site without wearing helmets and safety shoes
- ❖ Wearing helmets need to be mandatory for visitors
- ❖ Safety helmets, shoes and gloves should be used by all workers
- ❖ Safety net should be used at risky areas
- ❖ That access to and from site should clear
- ❖ That proper signboards should be available about safety and safe exit points
- ❖ All water tanks at site should be properly covered for further use.

## **TESTING**

### **Ambient Air Quality**

The ambient air quality monitoring was conducted in May 2017.

Monitoring was carried out at two stations for 7 days. The guidelines for selections of ambient air monitoring stations as given in IS – 5182 part 14, were followed. These guidelines state that, “when the objective of air sampling is to identify the contribution from specific sources of pollution, the sampling locations should be located in upwind and the downwind of such sources”. The location of air quality monitoring stations should satisfy the following conditions:

1. The site should be representative of the area selected;
2. The station should be set up and operated so as to yield data that can be compared with those from stations within the network

### **Sampling Stations:**

**Station A-1:** Near the plot entrance

**Station A-2:** At the center of plot

## **Duration of Sampling**

Duration : 7 days during May 2017

Period : Sampling was done 24 hourly continuous of SPM/RSPM and 8 hourly for gaseous parameters.

## **Sampling Procedure**

Time averaged in – situ sampling was adopted by passing a known volume of air through a trap, and a collecting medium (filter paper and bubbler). Repairable Dust Sampler was used for the purpose.

This procedure was adopted because there are no short-term variations and low concentration of gaseous pollutants was expected.

## **Analytical methods followed for ambient air quality monitoring**

### **(i) Suspended Particular Matter (SPM):**

The samples for SPM were collected on GF/A Filter paper by Respirable Dust Sampler (RDS), operated at maximum rate of 1.5 cu.m./min. and concentration were determined gravimetrically on 24 hrs. basis.

### **(ii) Sulphur dioxide (SO<sub>2</sub>):**

Sulphur dioxide collection was done by aspirating a measured volume of air through a dilute acidified solution of hydrogen peroxide. For

analysis, TCM method was followed (Ref. Chapter 700, Standard Method of Air Sampling and Analysis, 2nd edition, APHA, 1977).

**(iii) Nitrogen Oxides (IS: 5182; Part – VI – 1975 ):**

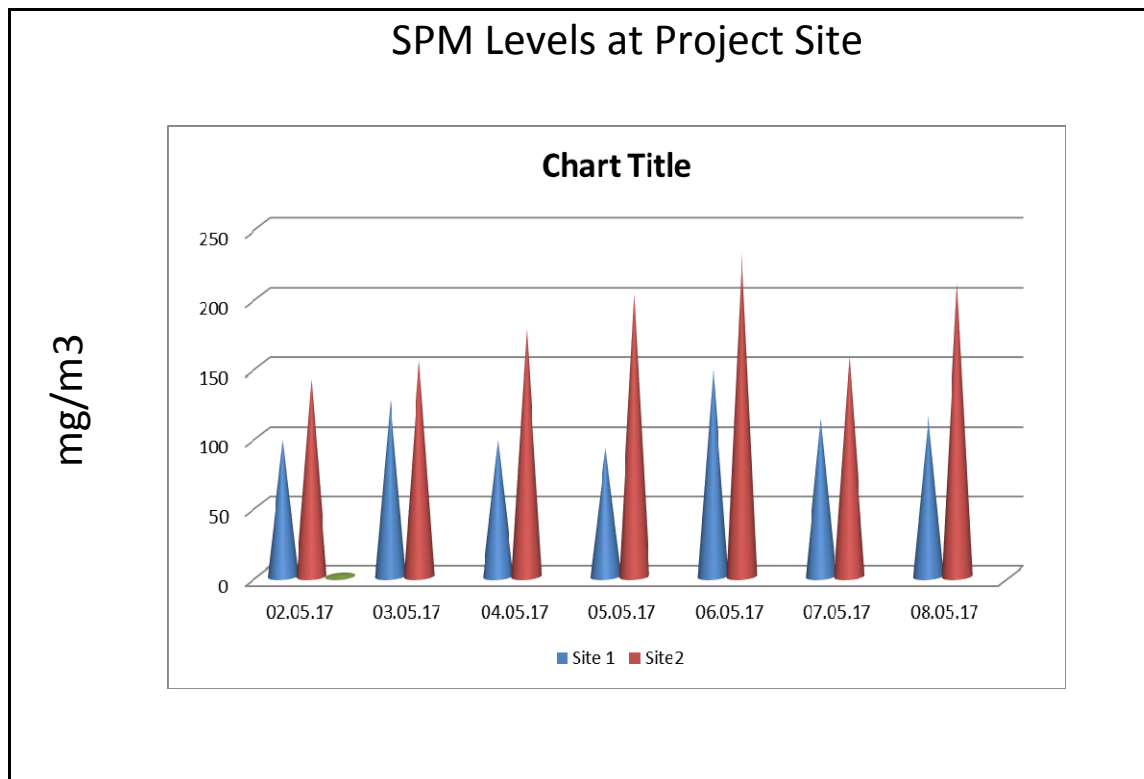
Nitrogen oxides were estimated by bubbling air through 0.1 N Sodium hydroxide solution and measured as nitrate through spectrophotometer at 540 nm.

**Results**

Air quality is a complex and dynamic characteristic of any area. Most of the areas in Gurgaon and adjoining locations reel under air pollution and construction activity is the major contributor of pollutants. The climatic conditions and high rise buildings aid and abet their dispersion in the adjoining areas. The ambient air quality results are summarized in following tables:

SPM $\mu\text{g}/\text{m}^3$						
DATE	A-1			A-2		
	Max	Min	Mean	Max	Min	Mean
02.05.17	344	106	98	360	170	142
03.05.17	320	158	127	368	166	155
04.05.17	319	190	98	319	198	178
05.05.17	326	98	92	361	175	203
06.05.17	297	192	148	370	227	232
07.05.17	322	162	113	314	135	158
08.05.17	328	123	115	347	198	211

RSPM $\mu\text{g}/\text{m}^3$						
DATE	A-1			A-2		
	Max	Min	Mean	Max	Min	Mean
02.05.17	199	78	125	210	99	125
03.05.17	248	105	161	255	111	189
04.05.17	219	79	163	322	127	178
05.05.17	166	100	115	317	114	199
06.05.17	235	141	125	252	138	209
07.05.17	202	108	124	266	112	164
08.05.17	234	169	171	288	113	199



The results show that there is a slight increase of SPM level due to excessive wind flow. When assessed air quality is compared to the prescribed standards, it was observed that SPM and RSPM values were very near to the standards. The higher values of SPM & RSPM are not solely contributed by the construction activities at this particular site but also by the nearby construction activities. The results confirm that the particulate load generated by traffic and construction activities remain as aerosol for longer period of time. The smaller the particulate, larger is the time it stays in suspension (RSPM). The detailed results indicate that night-time ambient air was usually better than that of morning and afternoon due to lesser traffic density and least construction activity.

## **Noise Level**

**Noise Measurement Locations:** The locations selected for the noise monitoring were as follows:

**Station N-1 :** Near the plot entrance

**Station N-2 :** At the center of the plot

## **Methodology:**

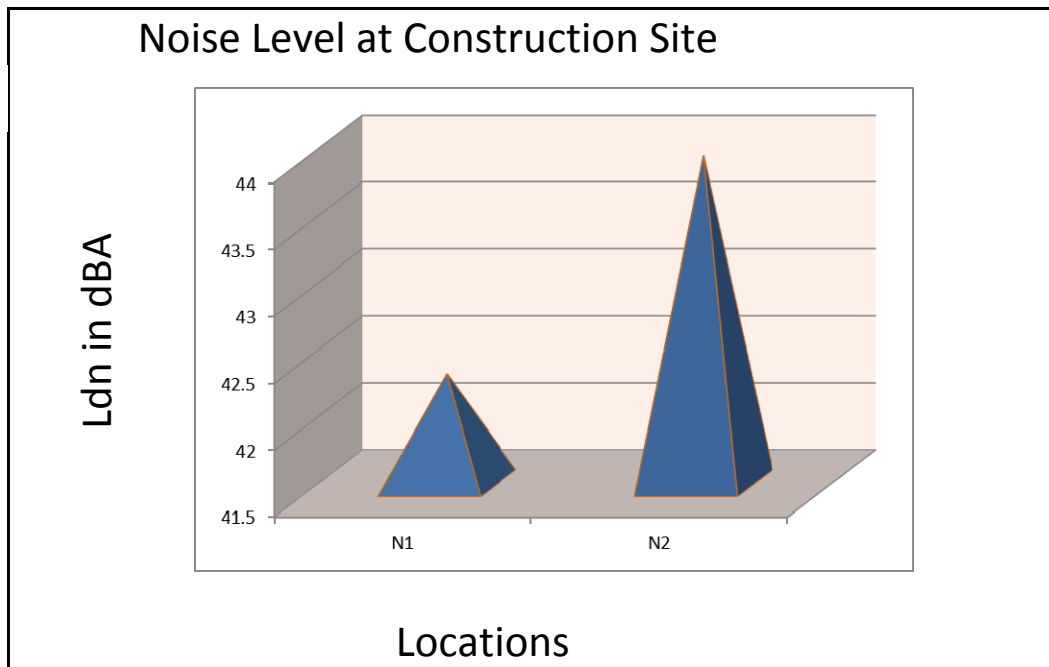
At each station noise level was monitored by noise meter for 24-hours simultaneously. For each measurement, dB (A) readings were taken for every 15 minutes to get  $L_d$ ,  $L_n$  and  $L_{dn}$ .

## Results

Results are summarized in following table. The ambient noise level at the entry point of plot is relatively higher than center of plot. During the day time, noise level at the entry and center of plot were 53.22 dB(A) and 53.87 dB(A) respectively. The standard for residential areas is  $\leq 55$  dB (A). During night noise level at the entry and center of plot were 38.64 dB(A) and 37.02 dB(A) respectively which are much lower than the night-time noise standards of 45 dB(A).

### NOISE LEVEL

Site	Land use	Day	Night	Residential Commercial
		Standard in dB(A)	Standard in dB(A)	
		Ld	Ln	Ldn
N1	Near the plot entrance	53.22	38.64	42.32
N2	At center of the plot	53.87	37.02	43.95





**COMPLETED TOWERS AT CONSTRUCTION SITE**





**COMPLETED TOWERS AT CONSTRUCTION SITE**



**DIFFERENT VIEWS OF CLUB HOUSE**



**EWS FLATS AT CONSTRUCTION SITE**



**COMMERCIAL SHOPS AT CONSTRUCTION SITE**





**GREEN AREA DEVELOPMENT AT CONSTRUCTION SITE**



**VILLAS UNDER CONSTRUCTION**



**TOWERS UNDER CONSTRUCTION**



**DG SETS UNDER INSTALLATION**